Online Extra

mahogany
End Table

This elegant solid-wood end table makes a great complement to the coffee table.

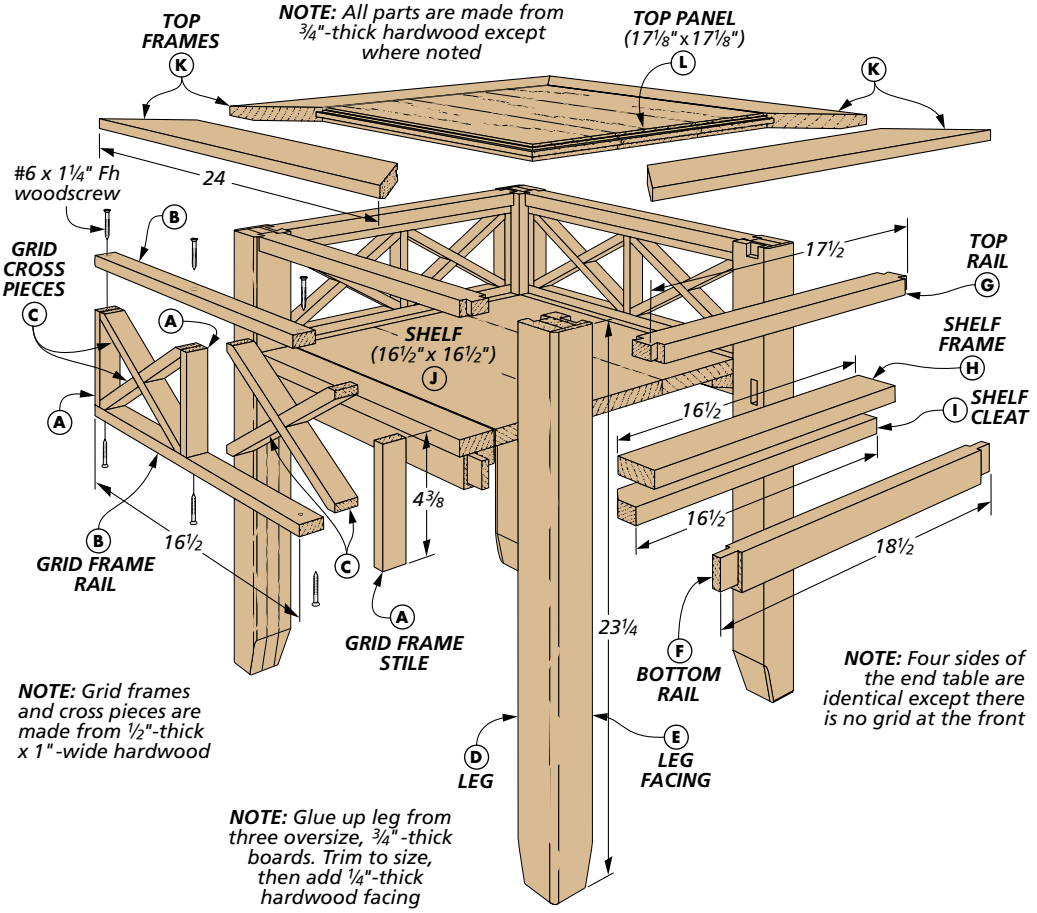
If you liked the mahogany coffee table project in issue No. 209 of *Woodsmith*, then you'll probably want an end table or two to fill out your new living room set. And this table is the perfect companion piece.

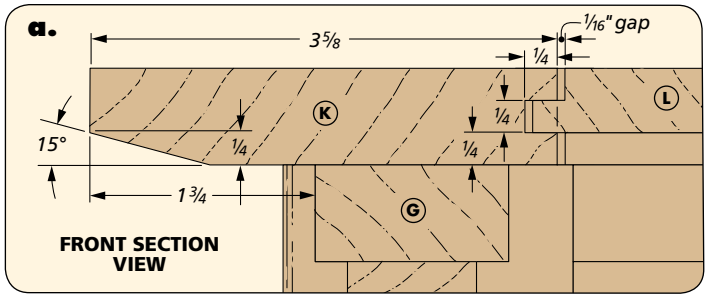
It shares many of the same construction details and techniques with the coffee table, but in a taller, square package. Here, I'll walk you through a few of the differences in the construction of the end table. You can refer to the coffee table article for the details on the techniques.

LONGER LEGS. One difference that's easy to see is that the end table is taller than the coffee table, so the legs are longer. Other than that, they're made exactly like the legs on the coffee table.

SQUARE DESIGN. Also, this end table is square rather than rectangular. So while the rectangular coffee table had a number of front and back parts that were longer than the end parts, many of the parts on this table are identical lengths, as shown in the drawing at right. They're machined and assembled the same way as before.

GRIDS & TOP. As for the grid frames and end table top, they also have some differences worth noting. The top features tongue and groove joints between the frame pieces and the panel (detail 'a'). You'll find more information on these parts on the next page.





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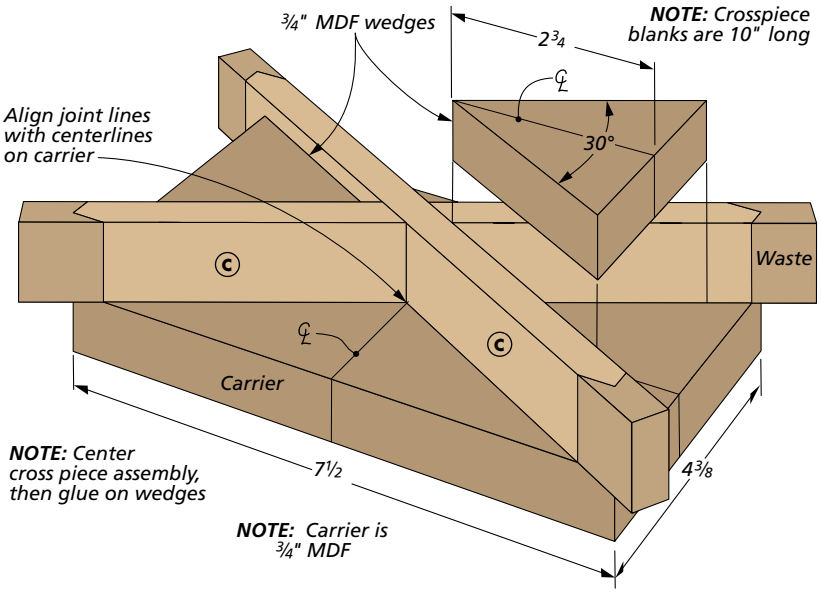
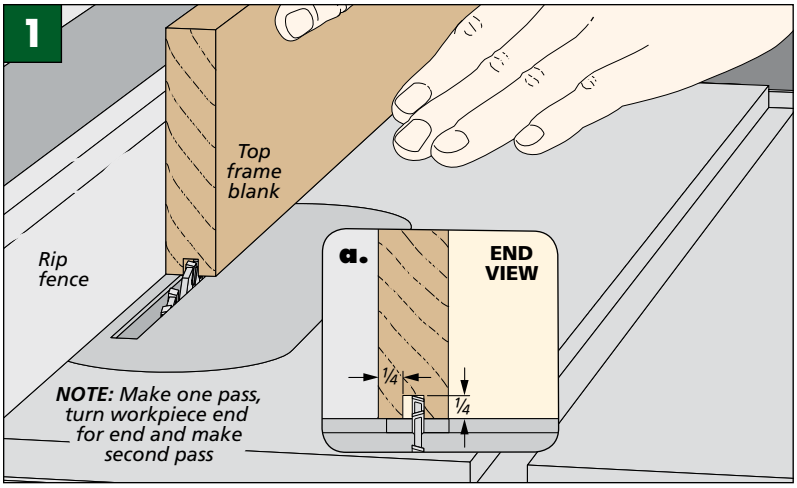
End Table Grid Frames

One of the unique features of the coffee table is the X-shaped grid panels that enclose the back and sides of the table. The end table also has these panels, but there are a few differences to these panels that are worth noting.

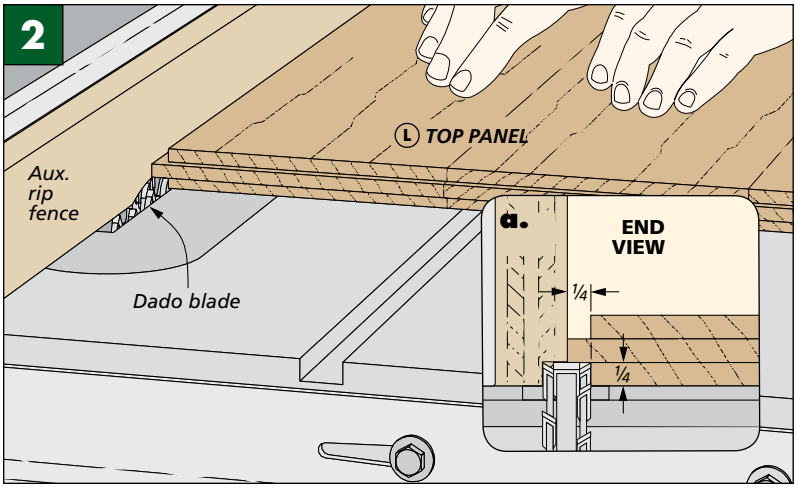
IDENTICAL GRID FRAMES. First of all, the three grid frames for the end table are identical in size. The dimensions for the grid frame rails and stiles are shown on page 1, as well in the Materials List on the following page.

CUTTING THE CROSS PIECES. The process for assembling the cross pieces and cutting them to size remains the same, except the final size of the cross piece assemblies is different. As a result, the MDF carrier board used for many of the table saw cuts is also different. The dimensions you'll need for the end table carrier are shown at right.





Cut a Centered Groove. *With the saw equipped with a standard table saw blade, set the rip fence to cut a groove just off-center on the frame piece. After making the first cut, flip it end for end to center the groove.*



Make the Mating Tongue. *Bury a dado blade in an auxiliary rip fence, and cut along both faces of the panel to make a centered tongue. Sneak up on the depth of the cut, and check the fit in a groove in a frame piece.*

Tongue & Groove Top

Probably the biggest difference between the mahogany coffee table and the end table is the top. On the coffee table, rabbeted and mitered frame pieces accept beveled glass panels. But the end table features a solid-wood top panel with tongues around the edges that fit in mating grooves in the frame pieces.

PART PREPARATION. Fortunately, this change is a pretty easy one to make. You can get started by cutting out three narrow boards to make up the top panel, and then gluing them edge to edge. When the glue dries, sand the panel smooth, and cut it to final size.

As for the the top frame pieces, you can simply cut all four parts to width and a bit longer than needed for now. Don't miter the ends just yet.

CUT THE GROOVES FIRST. Now you can get started on the grooves in the edges of the top frame pieces. This can be done with a standard table saw blade, as shown in Figure 1. Start with the blade slightly off-center on the thickness of the piece. That way, you'll end up with a centered groove when you flip the piece end for end to make the second cut.

TONGUES ON THE TOP PANEL. Next up is the centered tongue on the top panel. This is best accomplished by outfitting your table saw with a dado blade and a wood auxiliary rip fence, as shown in Figure 2. The key here is to "sneak up" on the thickness of the tongue, and check its fit in the groove until it's just right.

REVEAL. After mitering the frame pieces, you're ready to assemble the top. If you refer back to detail 'a' on page 1, you'll see the top panel is $\frac{1}{8}$" narrower and shorter than the opening in the frame pieces that it fits into. This creates a $\frac{1}{16}$" "reveal" around the tabletop and allows the panel to expand and contract. As you assemble the top, spot-glue the center of the tongues on the panel, and then position the panel in the grooves to create an even reveal between it and the frame.

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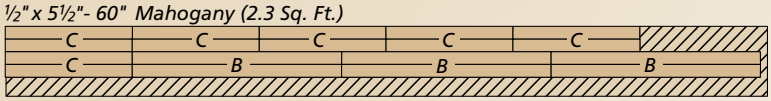
Materials, Supplies & Cutting Digram

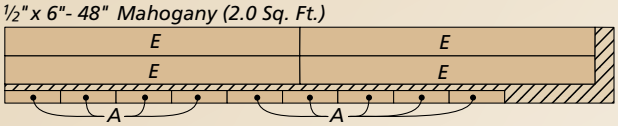
A	Grid Frame Stiles (9)	½ x 1 - 4⅜
B	Grid Frame Rails (6)	½ x 1 - 16½
C	Grid Cross Pieces (12)	½ x 1 - 10 rgh.
D	Legs (4)	2 x 2¼ - 23¼
E	Leg Facings (4)	¼ x 2¼ - 23¼
F	Bottom Rails (4)	¾ x 1½ - 18½
G	Top Rails (4)	¾ x 1½ - 17½
H	Shelf Frames (4)	¾ x 2 - 16½
I	Shelf Cleats (4)	¾ x 1¾ - 16½
J	Shelf (1)	¾ x 16½ - 16½
K	Top Frames (4)	¾ x 3⅝ - 24
L	Top Panel (1)	¾ x 17⅛ - 17⅛

- (18) #6 x 1¼" Fh Woodscrews
- (6) #8 x 1¼" Ph Woodscrews
- (18) ¾" Brads

½" x 5½" - 60" Mahogany (2.3 Sq. Ft.)

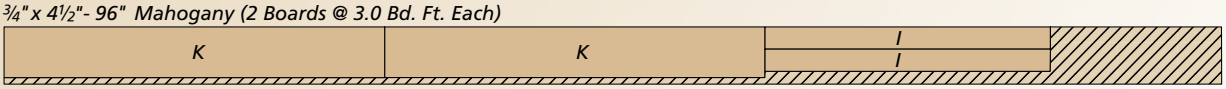


½" x 6" - 48" Mahogany (2.0 Sq. Ft.)

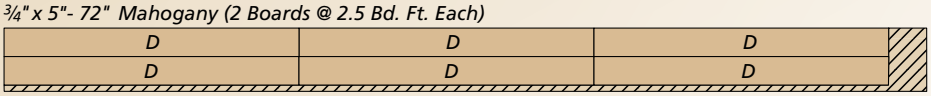


***NOTE:** Parts 'E' are planed down to ¼" thick*

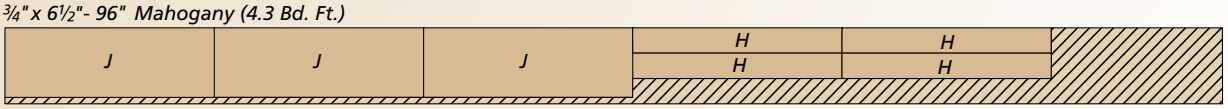
¾" x 4½" - 96" Mahogany (2 Boards @ 3.0 Bd. Ft. Each)



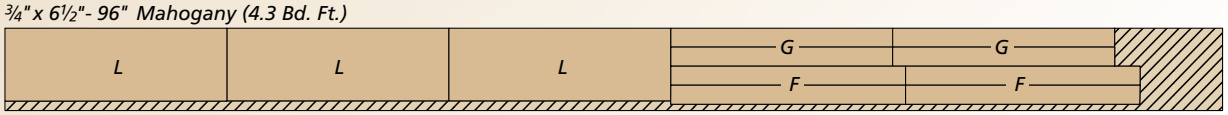
¾" x 5" - 72" Mahogany (2 Boards @ 2.5 Bd. Ft. Each)



¾" x 6½" - 96" Mahogany (4.3 Bd. Ft.)



¾" x 6½" - 96" Mahogany (4.3 Bd. Ft.)



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